



1) Sensing surface, 2) Housing, 3) Cover, 4) Potentiometer, 5) LED Power, 6) LED function indicator



**Basic features**

<b>Additional features</b>	weld-immune (magnetic field 100kA/m)
<b>Approval/Conformity</b>	CE UKCA cULus WEEE
<b>Basic standard</b>	IEC 60947-5-2
<b>Scope of delivery</b>	Nut (2x)
<b>Sensitivity</b>	Switching distance adjustable
<b>Series</b>	M12
<b>Trademark</b>	Global

**Electrical data**

<b>No-load current <math>I_0</math> max. at <math>U_e</math></b>	20 mA
<b>Operating voltage <math>U_b</math></b>	10...30 VDC
<b>Rated insulation voltage <math>U_i</math></b>	75 V DC
<b>Rated operating current <math>I_e</math></b>	100 mA
<b>Rated operating voltage <math>U_e</math> DC</b>	24 V
<b>Ready delay <math>t_v</math> max.</b>	300 ms
<b>Ripple max. (% of <math>U_e</math>)</b>	10 %
<b>Switching frequency</b>	100 Hz
<b>Utilization category</b>	DC -13
<b>Voltage drop static max.</b>	1.5 V

**Display/Operation**

<b>Function indicator</b>	yes
<b>Power indicator</b>	yes

**Environmental conditions**

<b>Ambient temperature</b>	-25...85 °C
<b>Contamination scale</b>	1
<b>IP rating</b>	IP67

**Electrical connection**

<b>Connection</b>	M12x1-Male, 3-pin, A-coded
<b>Polarity reversal protected</b>	yes
<b>Protection against device mix-ups</b>	no
<b>Short-circuit protection</b>	yes

**Functional safety**

<b>MTTF (40 °C)</b>	343 a
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**Interface**

<b>Switching output</b>	PNP normally open (NO)
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**Material**

<b>Cover material</b>	PBT PA
<b>Housing material</b>	1.4305 stainless steel
<b>Material sensing surface</b>	PBT

Capacitive Sensors  
**BCS M12B4G2-PSC40D-S04K**  
Order Code: BCS00P0

**BALLUFF**

**Mechanical data**

Dimension	Ø 12 x 75 mm
Installation	for flush mounting
Size	M12x1
Thread (A)	M12x1
Tightening torque	8 Nm

**Range/Distance**

Hysteresis H max. (% of Sr)	15 %
Measuring range	1...4 mm
Repeat accuracy max. (% of Sr)	2 %
Temperature drift max. (% of Sr)	20 % [-5...55 °C]

**Remarks**

The potentiometer does not have a fixed stop, but can be turned endlessly without destroying anything.  
If no change in the switching signal is detected, the potentiometer should be turned forwards or backwards until a signal change occurs at the output.  
For more information about MTTF and B10d see MTTF / B10d Certificate

Indication of the MTTF- / B10d value does not represent a binding composition and/or life expectancy assurance; these are simply experiential values with no warranty implications. These declared values also do not extend the expiration period for defect claims or affect it in any way.

**Connector Drawings**



**Wiring Diagrams**

